

CLAIMS:

1. A discharge electrode for a wire bonding apparatus which applies a high voltage across an electrode and a tip end of a wire bonding wire so that a discharge is generated between said electrode and said wire, said discharge electrode comprising:
 - a conductive electrode core material; and
 - an insulating film that has a porous structure and formed on a surface of said electrode core material, said insulating film being formed with an insulating layer which is obtained by having said porous structure subjected to a pore sealing treatment and covers said electrode core, and said electrode having, on a portion of a discharge position thereof that faces a tip end of said wire, an exposed surface where said electrode core material is exposed.
2. The discharge electrode according to Claim 1, wherein said insulating film having said porous structure is a porous alumina film formed by an anodic oxidation method.
3. The discharge electrode according to Claim 1, wherein said insulating film having said porous structure is a porous alumina film formed by a plasma flame coating method.
4. The discharge electrode according to Claim 2 or 3, wherein said insulating layer formed by said pore sealing treatment is an insulating layer which is formed by depositing an inorganic material film on a surface of said porous alumina film by laser PVD.
5. The discharge electrode according to Claim 2 or 3, wherein said insulating layer formed by said pore sealing treatment is an insulating layer formed by impregnating said porous alumina film with a resin.